

### Abstract of the Disclosure

A method and corresponding apparatus for accurately determining the offset of the carrier frequency of a received signal from a nominal frequency (the offset due to for example Doppler shifting), such as is done in a ranging receiver when acquiring or tracking a signal transmitted by a beacon (such as a satellite) of a positioning system. The method amplifies a conventional correlation by performing a special noncoherent integration of the real and imaginary components of the output of a conventional (coherent) correlation calculation, resulting in a complex phasor having a phase that bears information about the offset of the carrier frequency from the nominal carrier frequency.